Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) A wireless communication receiver, comprising:

    (a) a processing unit that processes received signals and filters the processed signals in an analog domain to output filtered analog signals;

    (b) an analog-to-digital converter (ADC) that converts the filtered analog signals into digital signals; and

    (c) a digital filter that filters the digital signals from the ADC and attenuates residual interferers in the digital signals by a predetermined amount, so as to allow relaxation of tolerable quantization noise generated by the ADC to a pre-defined level to thereby substantially reduce a dynamic range of the ADC, wherein the pre-defined level is higher than a level prescribed by the receiver's sensitivity;

    wherein the ADC has a word length corresponding to the reduced dynamic range.

2. (canceled)

3. (previously presented) The receiver of claim 1, wherein the pre-defined level of the quantization noise is maintained within a range, such that the total interference of the receiver is kept at a level not greater than an allowable level.

4. (previously presented) The receiver of claim 1, further comprising a demodulator that demodulates the filtered digital signals from the ADC to recover user data.

5. (previously presented) A method for use in a wireless communication receiver, the method comprising the steps of:

    processing received signals;

filtering the processed signals in an analog domain to output filtered analog signals;

converting the filtered analog signals into digital signals; and

filtering the digital signals using a digital filter to attenuate residual interferers in the digital signals by a predetermined amount, so as to allow relaxation of tolerable quantization noise generated at the converting step to a pre-defined level to thereby substantially reduce the number of quantization bits required at the converting step, wherein the pre-defined level is higher than a level prescribed by the receiver's sensitivity;

wherein the converting step converts the filtered analog signals into the digital signals with a corresponding reduced number of quantization bits.

6. (canceled)

7. (previously presented) The method of claim 5, wherein the pre-defined level is maintained within a range, such that the total interference of the receiver is kept at a level not greater than an allowable level.

8. (previously presented) The method of claim 5, further comprising a step of demodulating the filtered digital signals to recover user data.

9. (previously presented) The receiver of claim 1, wherein the digital filter is a digital low-pass filter configured to attenuate out-of-band interferers.

10. (currently amended) The receiver of claim 1, wherein the tolerable quantization noise of the ADC is relaxed to -90.24 in decibels (dB) with reference to one milliwatt (dBm), the dynamic range for the ADC is reduced to 26.24 dB, and the word length of the ADC is between 3 bits to and 5 bits.

11. (new) The receiver of claim 1, wherein the tolerable quantization noise of the ADC is relaxed to -90.24 in decibels (dB) with reference to one milliwatt (dBm).

12. (new) The receiver of claim 1, wherein the dynamic range for the ADC is reduced to 26.24 dB.

13. (new) The receiver of claim 1, wherein the word length of the ADC is between 3 bits and 5 bits.

14. (new) The method of claim 5, wherein the tolerable quantization noise generated at the converting step is relaxed to -90.24 in decibels (dB) with reference to one milliwatt (dBm) and the number of quantization bits required at the converting step is between 3 and 5.

15. (new) The method of claim 5, wherein the tolerable quantization noise generated at the converting step is relaxed to -90.24 in decibels (dB) with reference to one milliwatt (dBm).

16. (new) The method of claim 5, wherein the number of quantization bits required at the converting step is between 3 and 5.